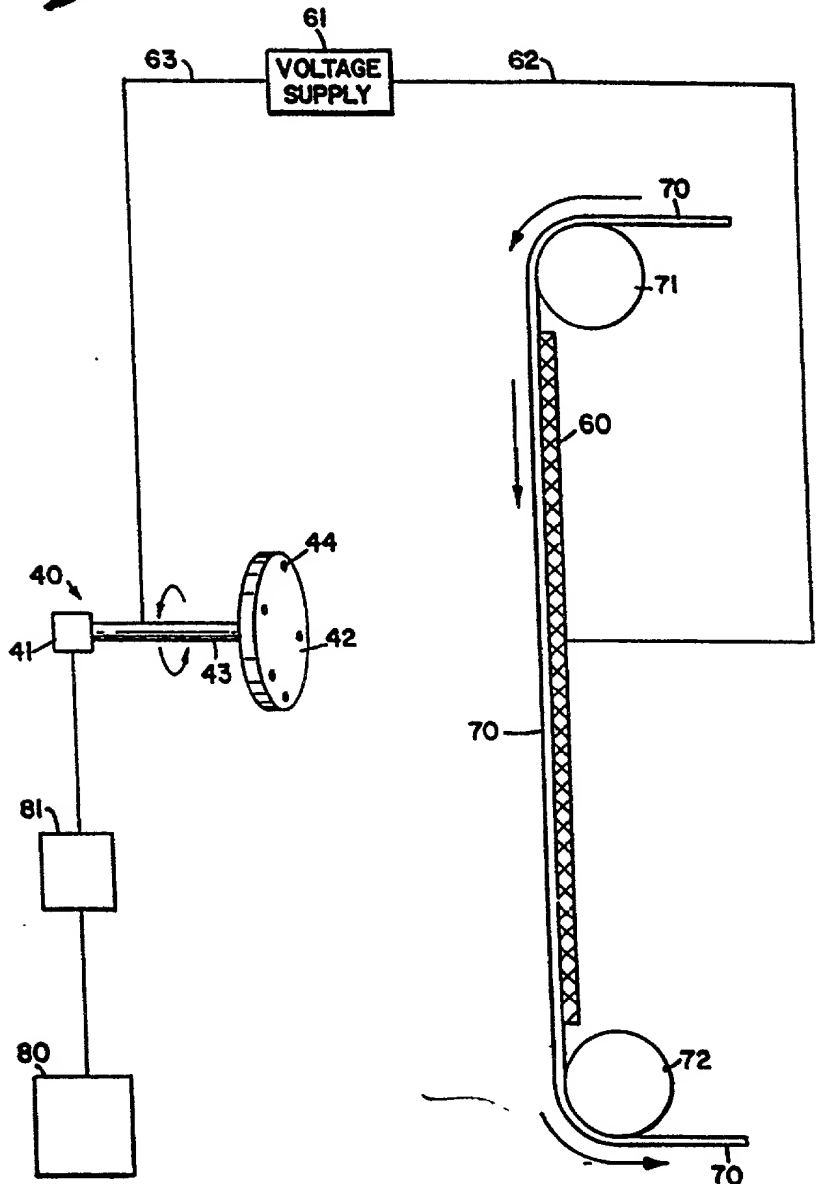


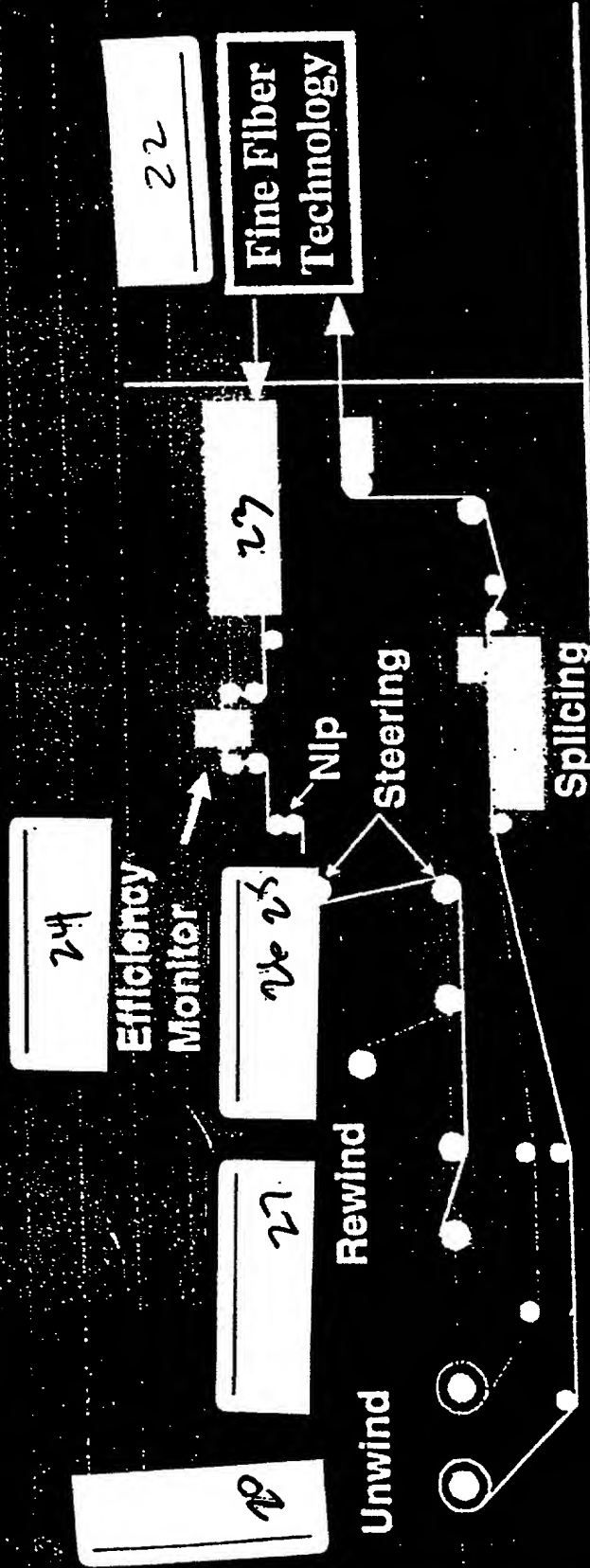
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FIG. 1



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# Fine Fiber Technology



Donaldson  
T.M. Weik  
6 Dec 95

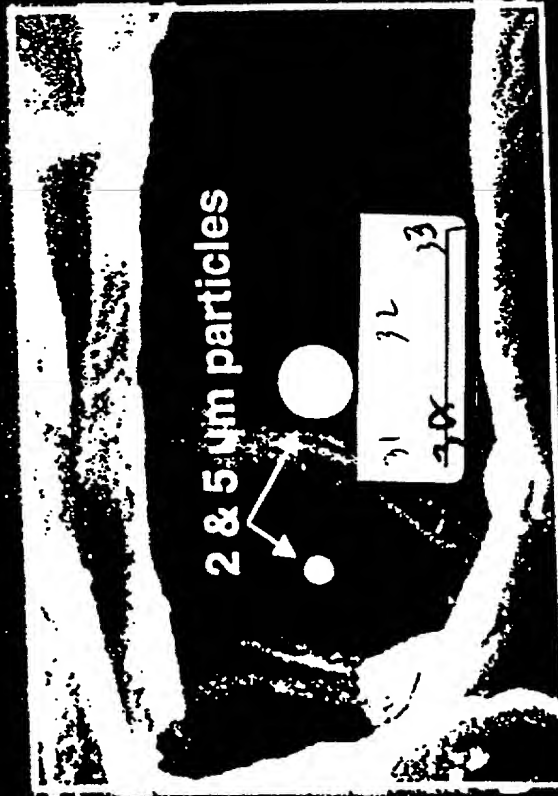
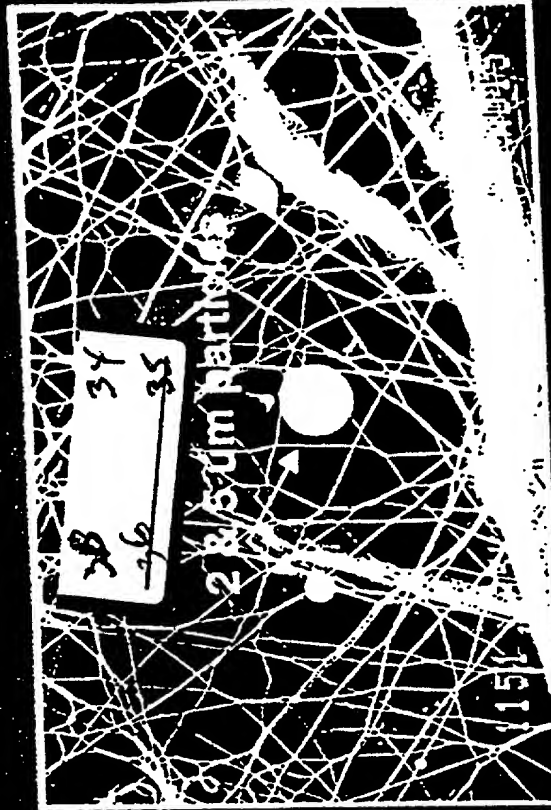
200

24

FM 2

# Ultra-Web®

# Cellulose Media



2,000 X Scanning Electron Microscope Images

Donaldson

**ACS**

Katz Analytical Services, Inc.  
1191-20C-3, Sample #: 1, Angle: 65

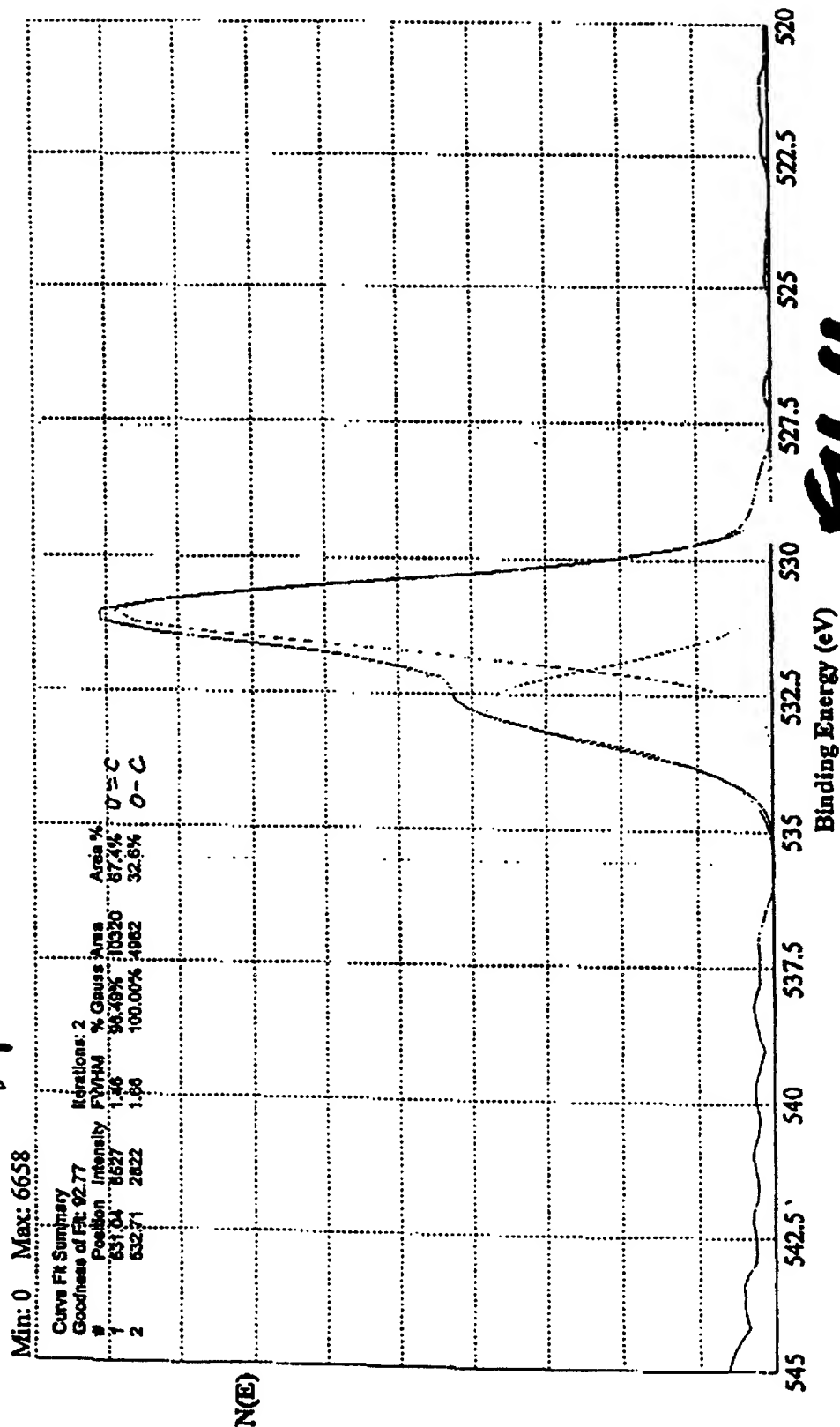
XPS Multiplex

O 1s

EV/Step: 0.2 eV, Time/Step: 50 mSec, Sweeps: 12

Source: Al, Pass Energy: 71.55 eV, Work Function: 4.1 eV

Fig 4. ESCA O 1s Spectra for Sample As Span



File 4

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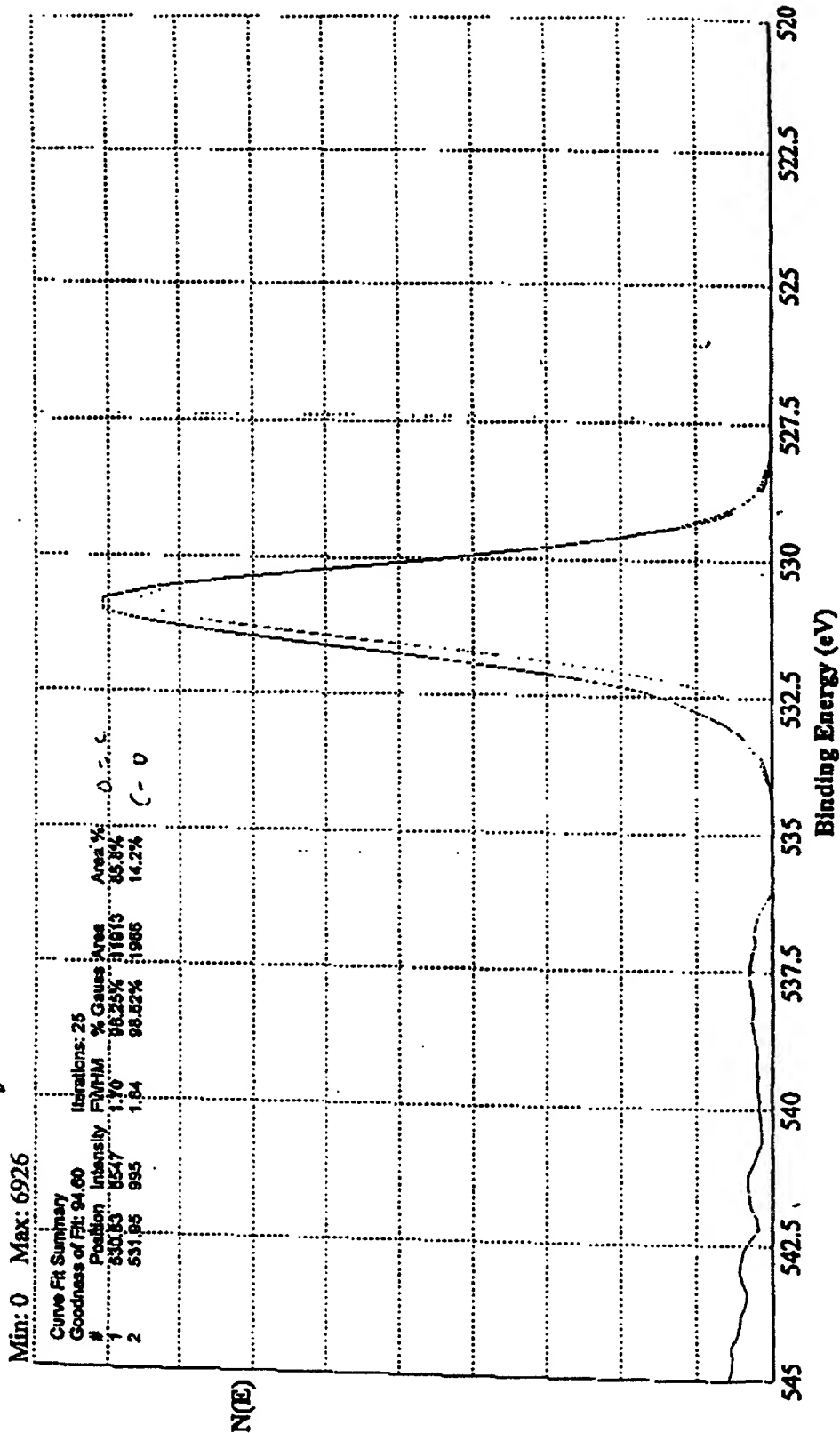
Katz Analytical Services, Inc.  
1191-20C-4, Sample #: 1, Angle: 65

XPS Multiplex

O 1s

EV/Step: 0.2 eV, Time/Step: 50 mSec, Sweeps: 12  
Source: Al, Pass Energy: 71.55 eV, Work Function: 4.1 eV

Fig 3. ESCA O 1s Spectra for Heat-Treated Sample 6A



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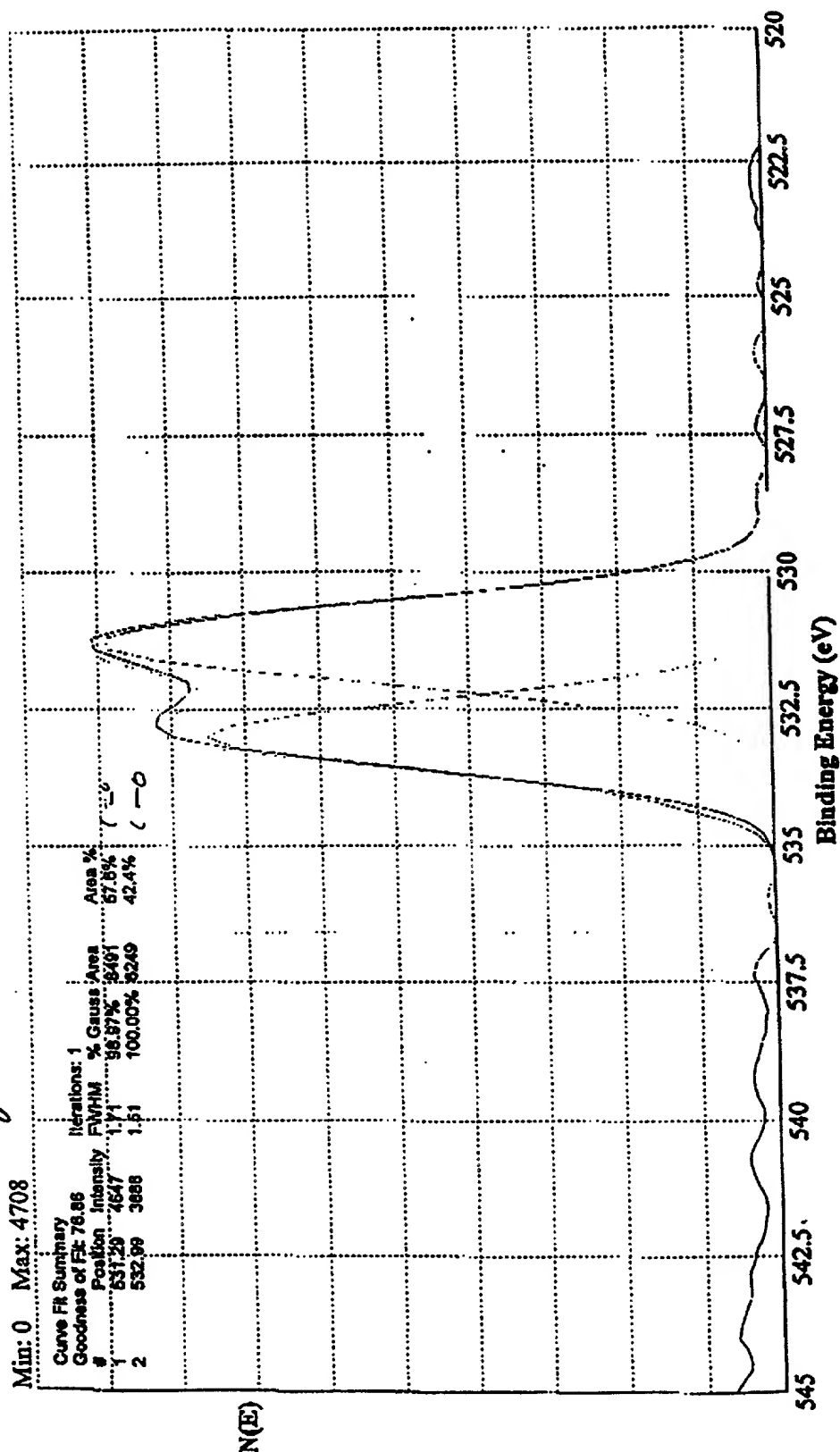
Katz Analytical Services, Inc.  
1191-20C-5, Sample #: 1, Angle: 65

XPS Multiplex

O 1s

EV/Step: 0.2 eV, Time/Step: 50 mSec, Sweeps: 12  
Source: Al, Pass Energy: 71.55 eV, Work Function: 4.1 eV

*Fig. B, ESCA O 1s Spectra for As-Span Example*



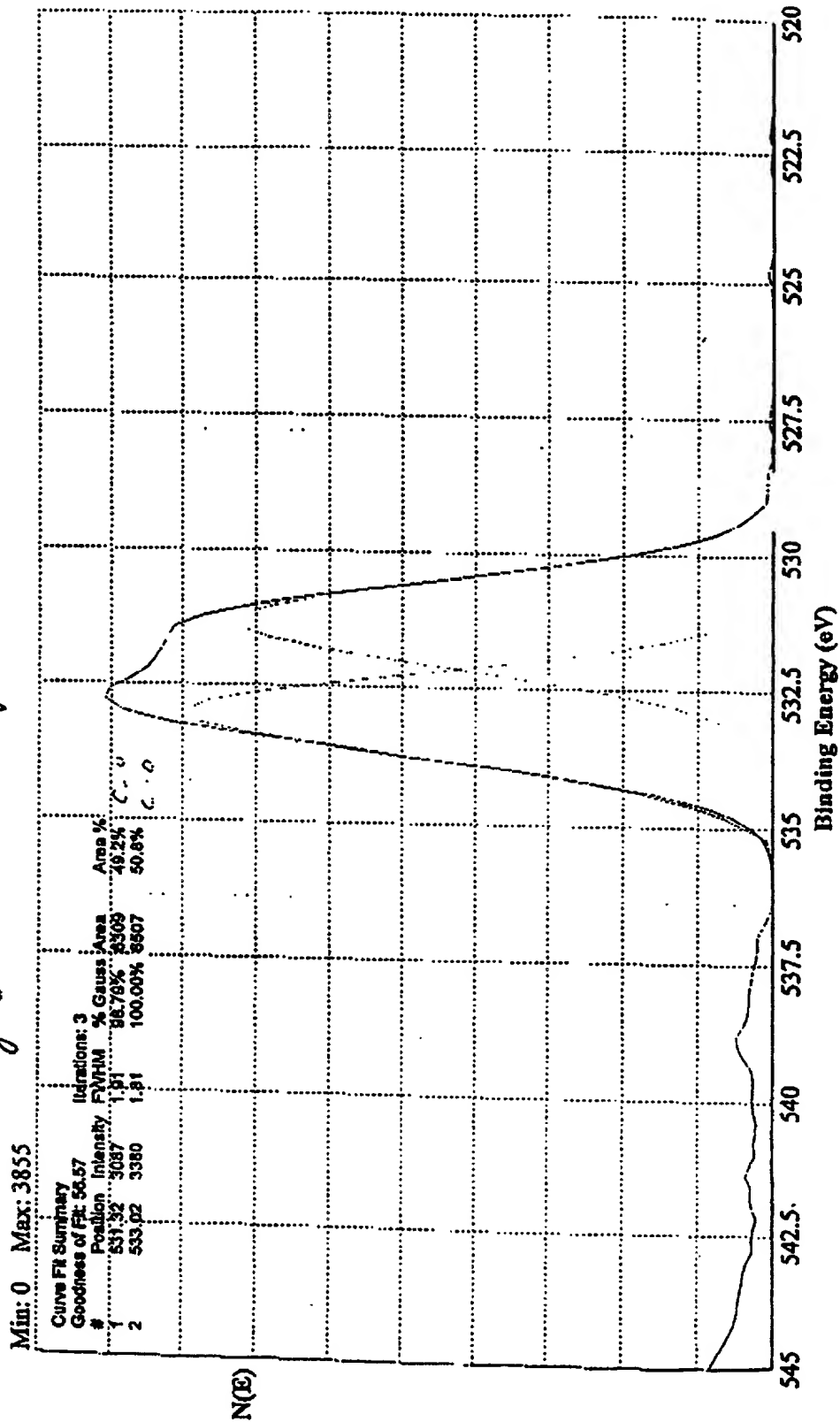
Katz Analytical Services, Inc.  
1191-20C-6, Sample #: 1, Angle: 65

XPS Multiplex

O 1s

EV/Step: 0.2 eV, Time/Step: 50 mSec, Sweeps: 16  
Source: Al, Pass Energy: 71.55 eV, Work Function: 4.1 eV

Fig 1 ESCA O1s Spectra for Heat-Treated Sample 6B



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Katz Analytical Services, Inc.  
1191-20C-3, Sample #: 1, Angle: 65

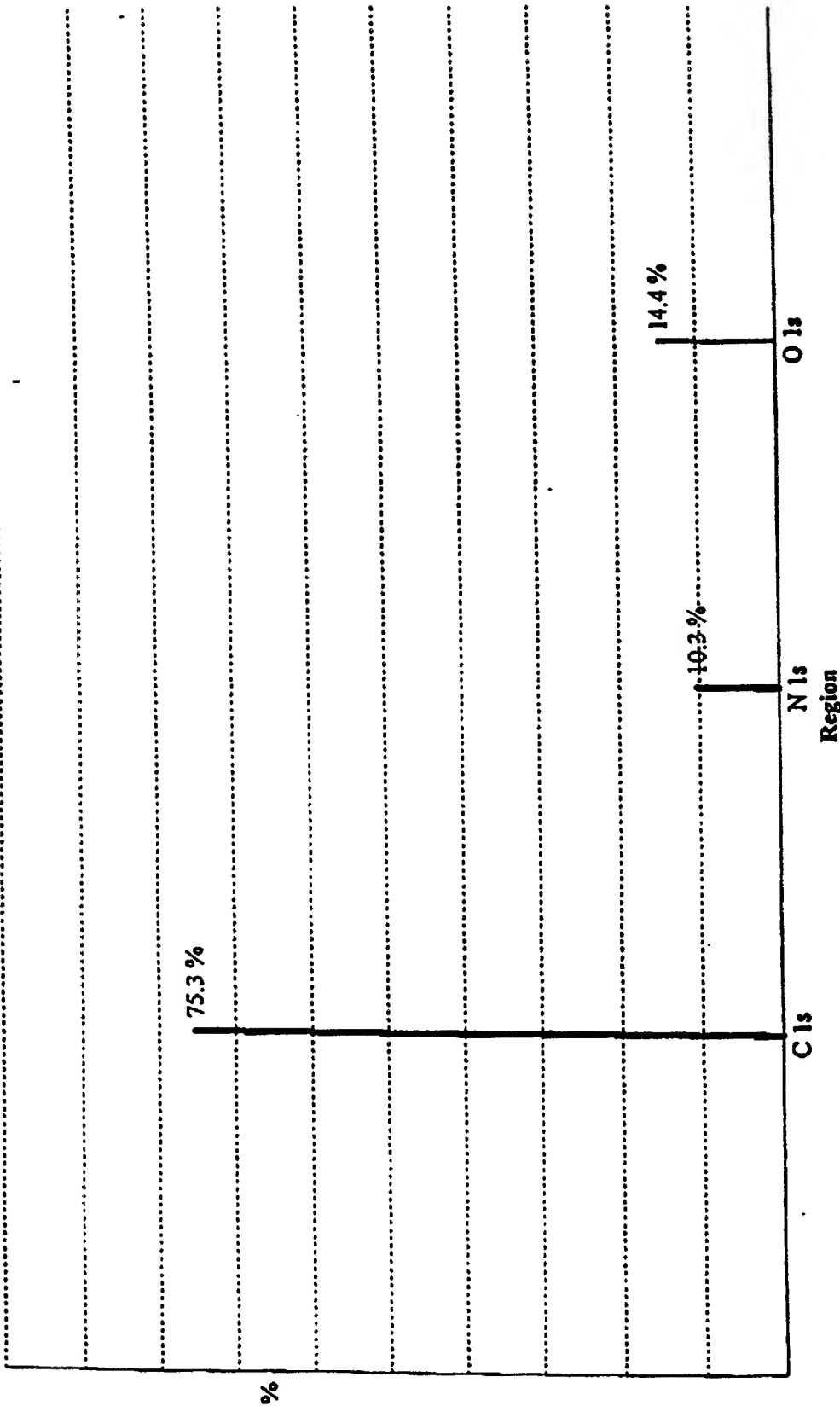
XPS Multiplex

Source: Al, Pass Energy: 71.55 eV, Work Function: 4.1 eV

Fig 8

ESCA Multiplex for As-spun Sample 6A

Min: 0 Max: 100

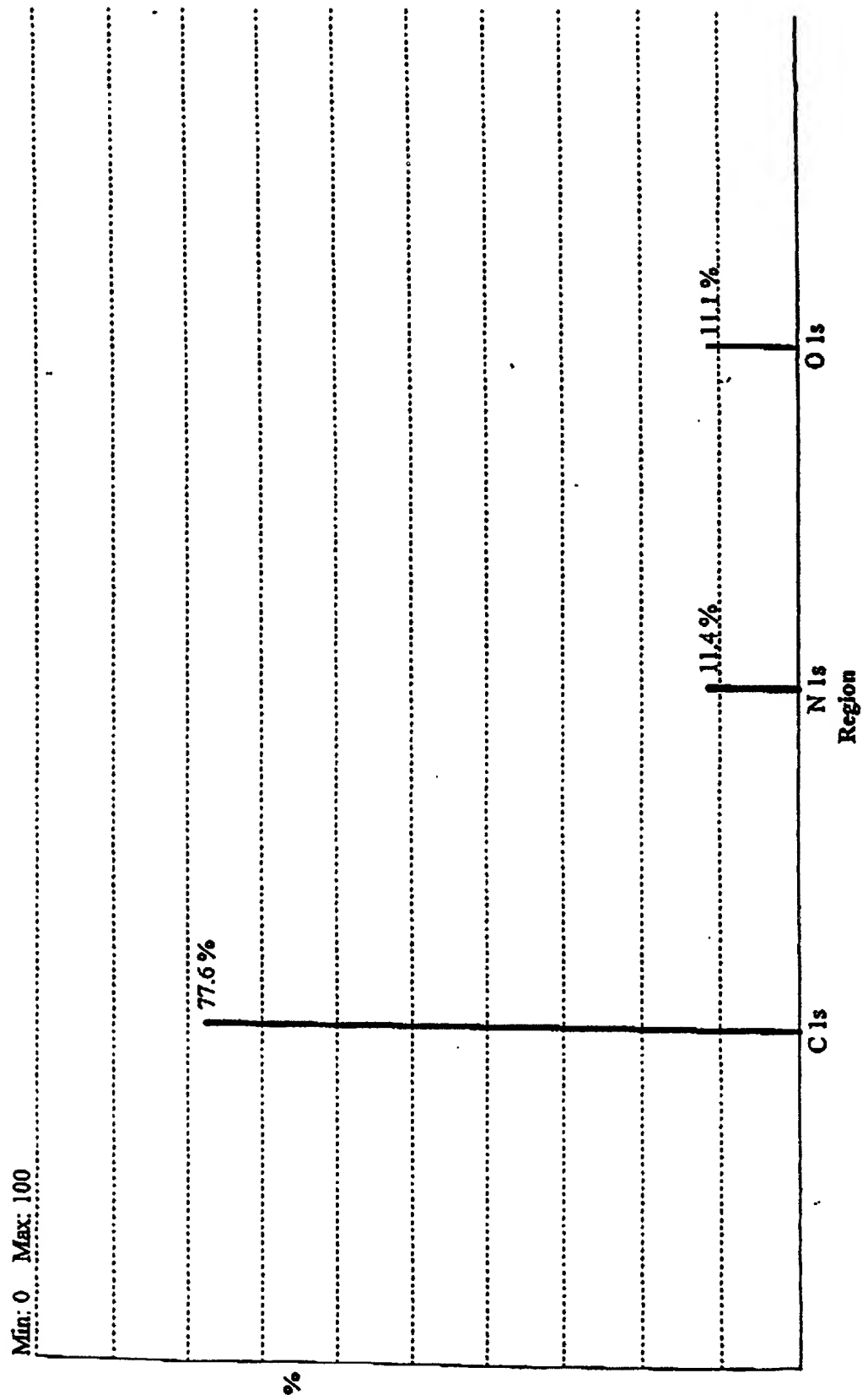


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Katz Analytical Services, Inc.  
1191-20C-4, Sample #: 1, Angle: 65

XPS Multiplex  
Source: Al, Pass Energy: 71.55 eV, Work Function: 4.1 eV  
Fig 9. ESCA Multiplex for Heat Treated Sample 6A



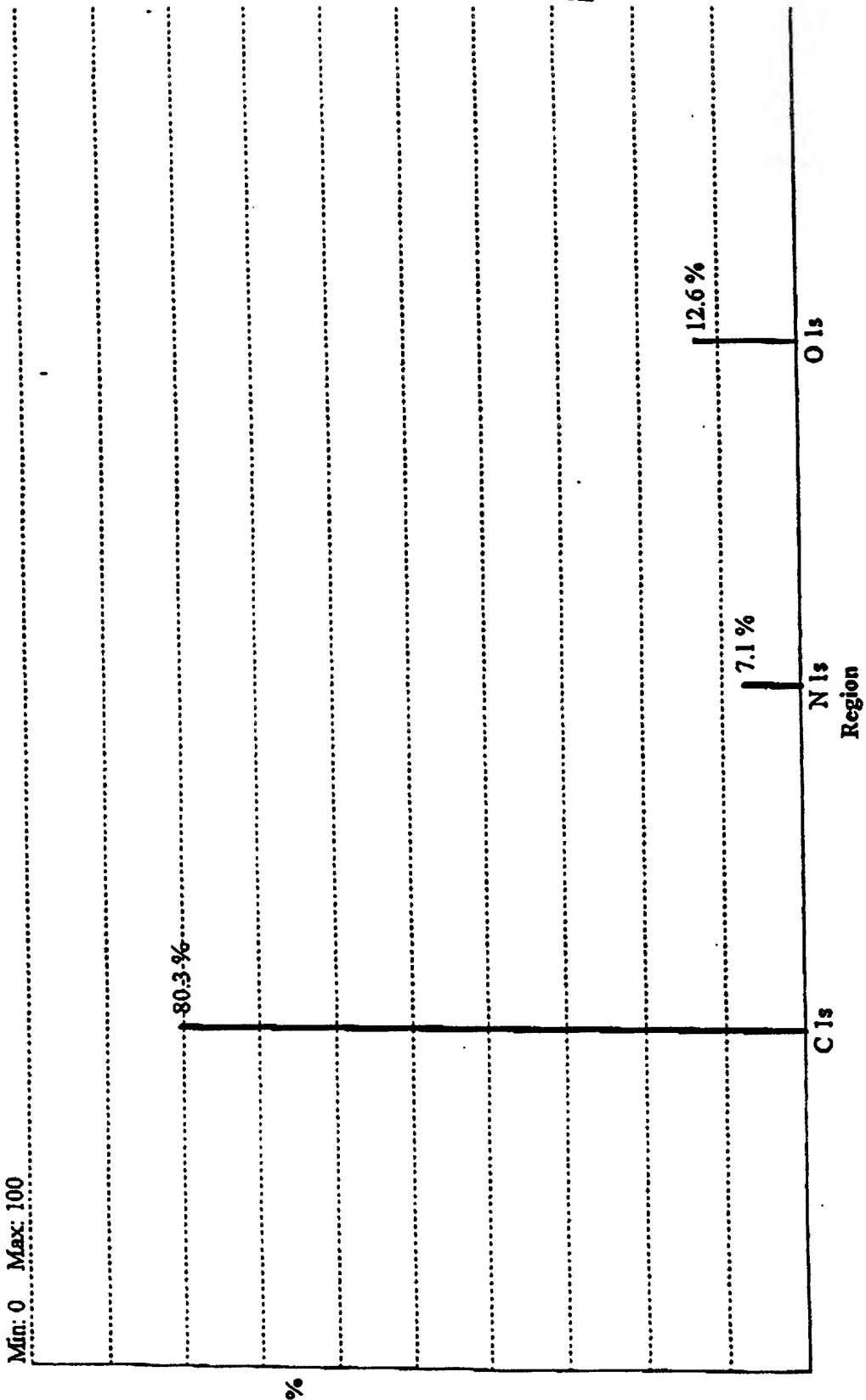
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Katz Analytical Services, Inc.  
1191-20C-5, Sample #: 1, Angle: 65

XPS Multiplex

Source: Al, Pass Energy: 71.55 eV, Work Function: 4.1 eV

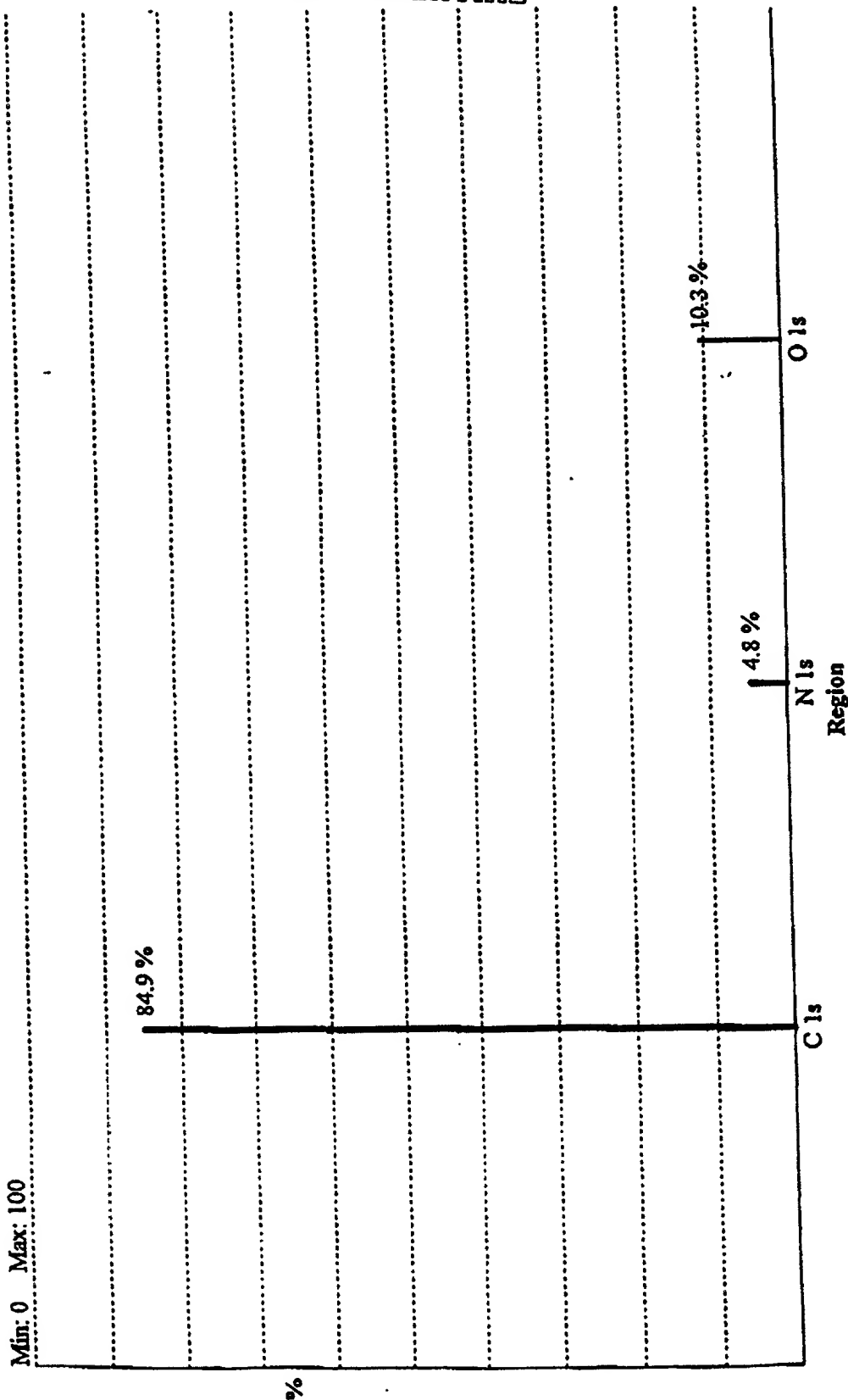
Fig 10 ESCA Multiplex for As-Spun Sample 16B



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Katz Analytical Services, Inc.  
1191-20C-6, Sample #: 1, Angle: 65

XPS Multiplex  
Source: Al, Pass Energy: 71.55 eV, Work Function: 4.1 eV  
Fig 11 ESCA Multiplex for Heat-Treated Sample 6B



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... due to the breakage of small or ... about their own ...

# Ultra Web Long Sock

October 26, 1993

Hot  
water  
probe  
in  
fluid  
multitests

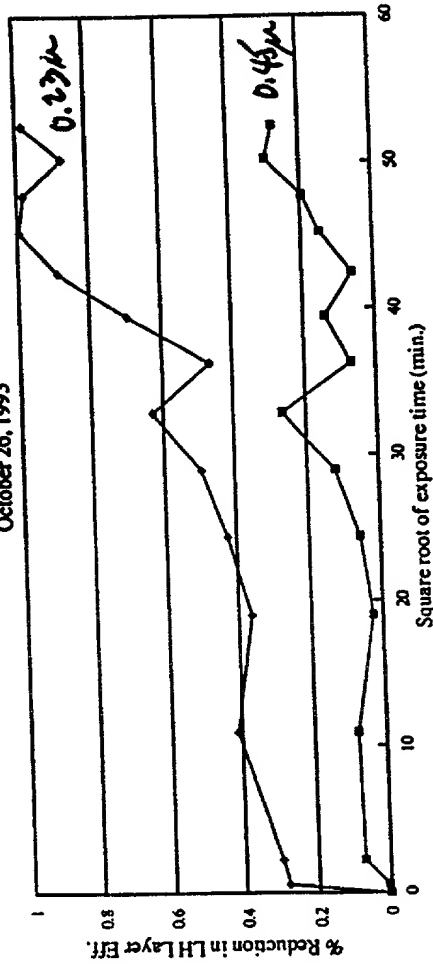


Fig 12

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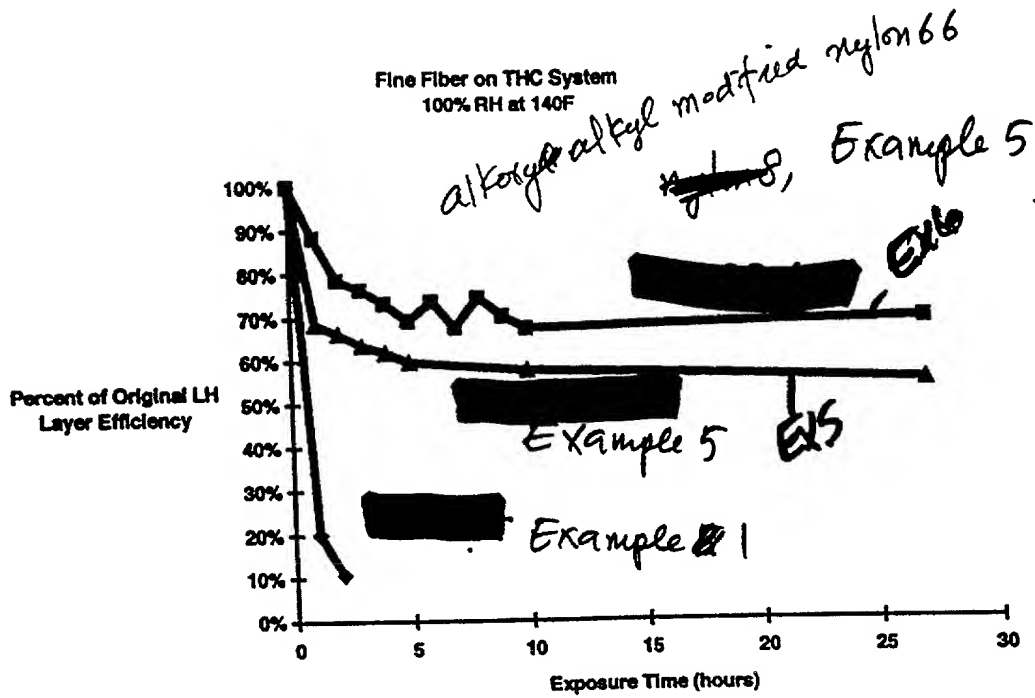
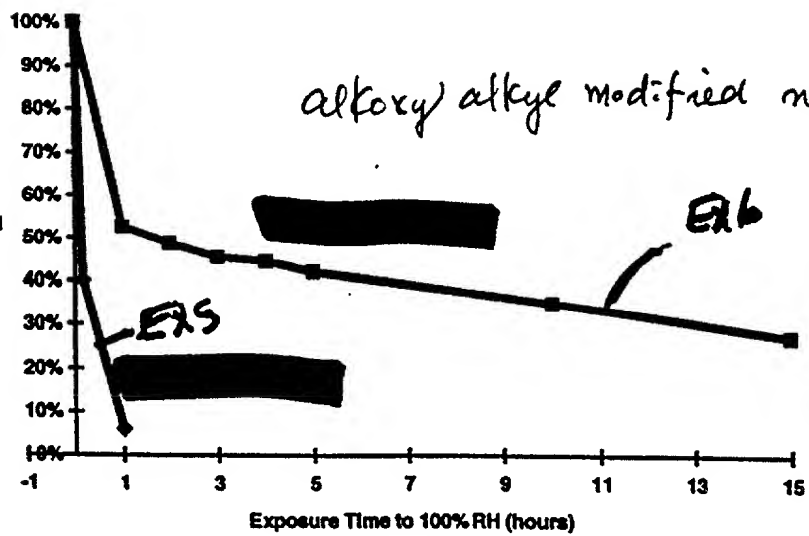


Fig. 13

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FL614

Fine Fiber on the THC System  
160 F at 100% RH

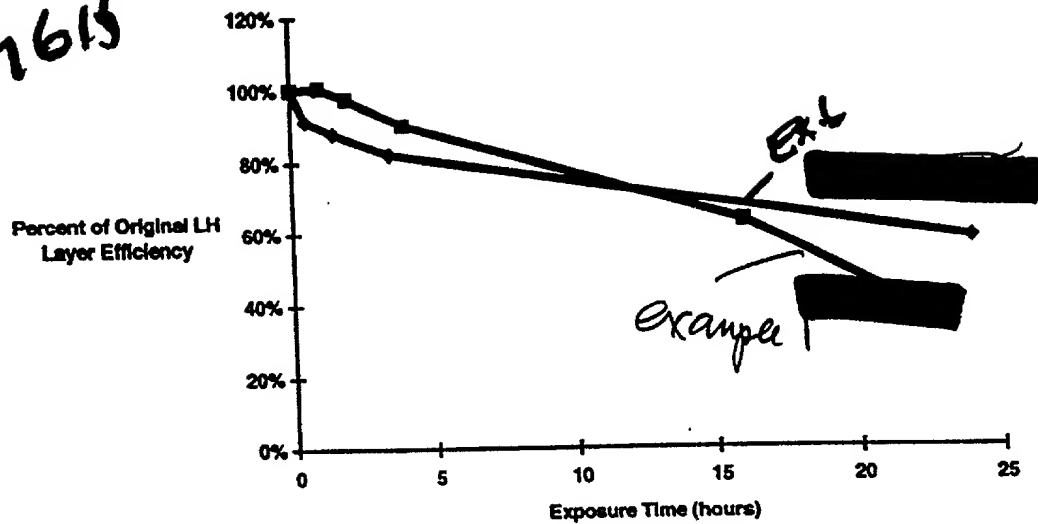


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+1  
XS

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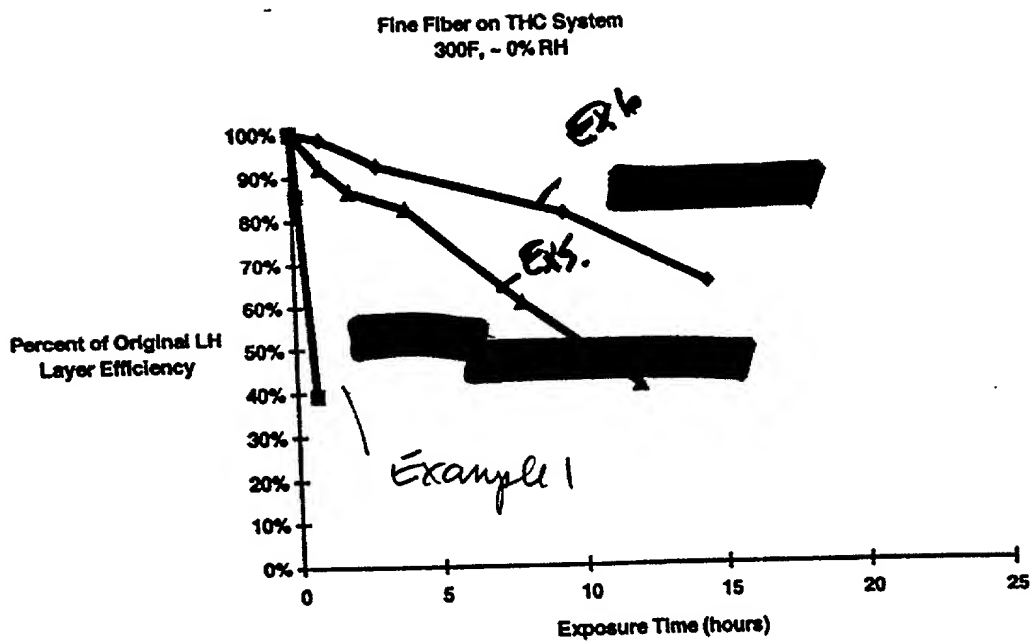
F1615

Fine Fiber on THC System  
250F, ~ 0% RH



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Fig 16



FOI#50"59T2850



TOP SECRET

12 Me H

Sample: 1191-19C-6

Size: 9.1500 mg

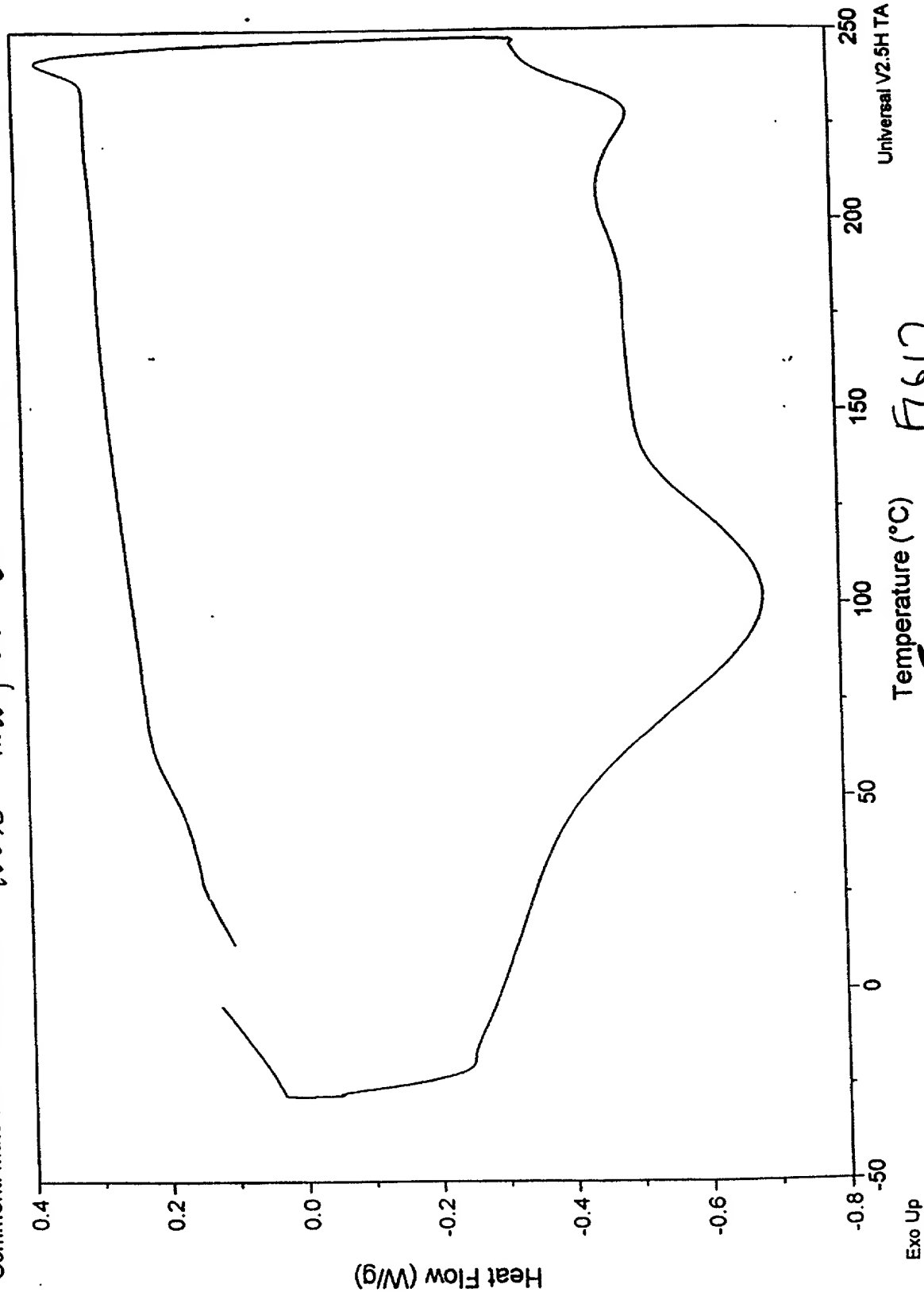
Method: Polymer Samples

Comment: Material characterization

DSC nylon

100% modified 66

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Universal V2.5H TA Instruments

Temperature (°C) F617

TEST 50" 69T 2860

Sample: 1191-19C-6

Size: 9.1500 mg

Method: Polymer Samples

Comment: Material characterization

2nd Melt

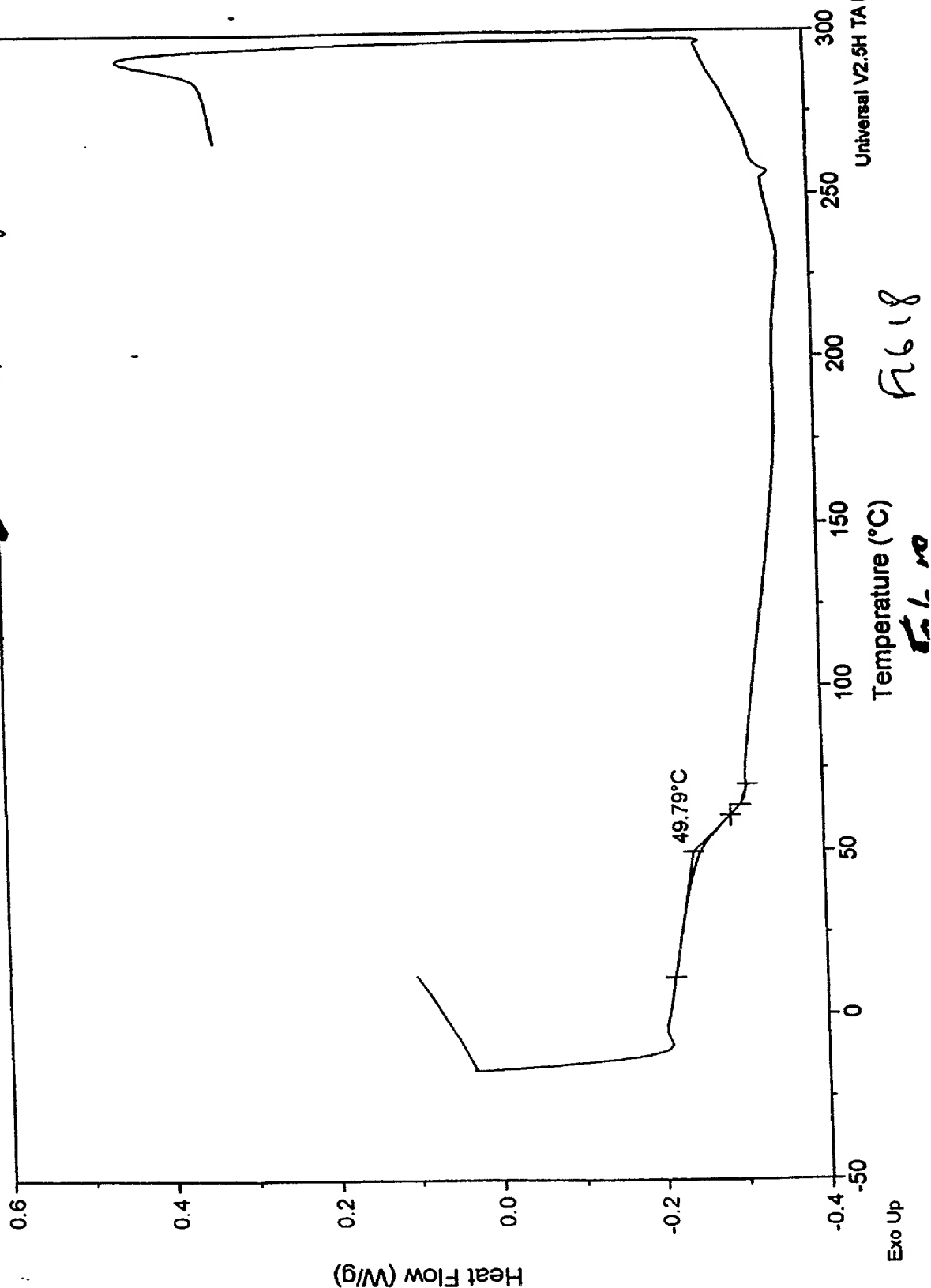
DSC

nylon

100% modified

66 - After Fully Cross-Linked

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TOP SECRET 6972850

Sample: 1191-19C-7

Size: 9.8400 mg

Method: Polymer Samples

Comment: Material characterization

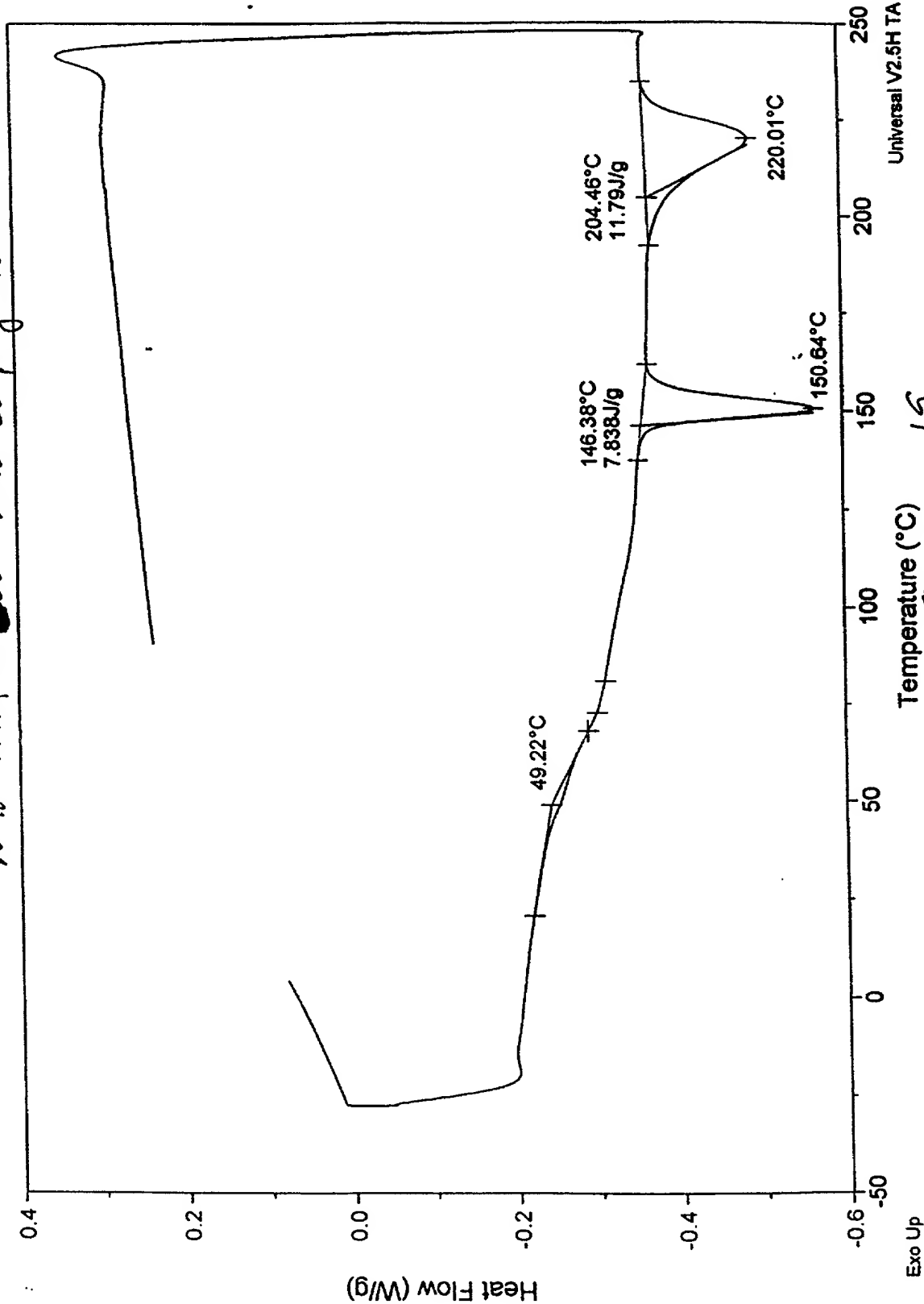
Example 6

70% mol-fail 66: 30% co-polyamide

1st Melt

DSC

mlm



Universal V2.5H TA Instruments

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FOUO 6974860

Sample 6 2nd melt  
DSC

Sample: 1191-19C-7

Size: 9.8400 mg

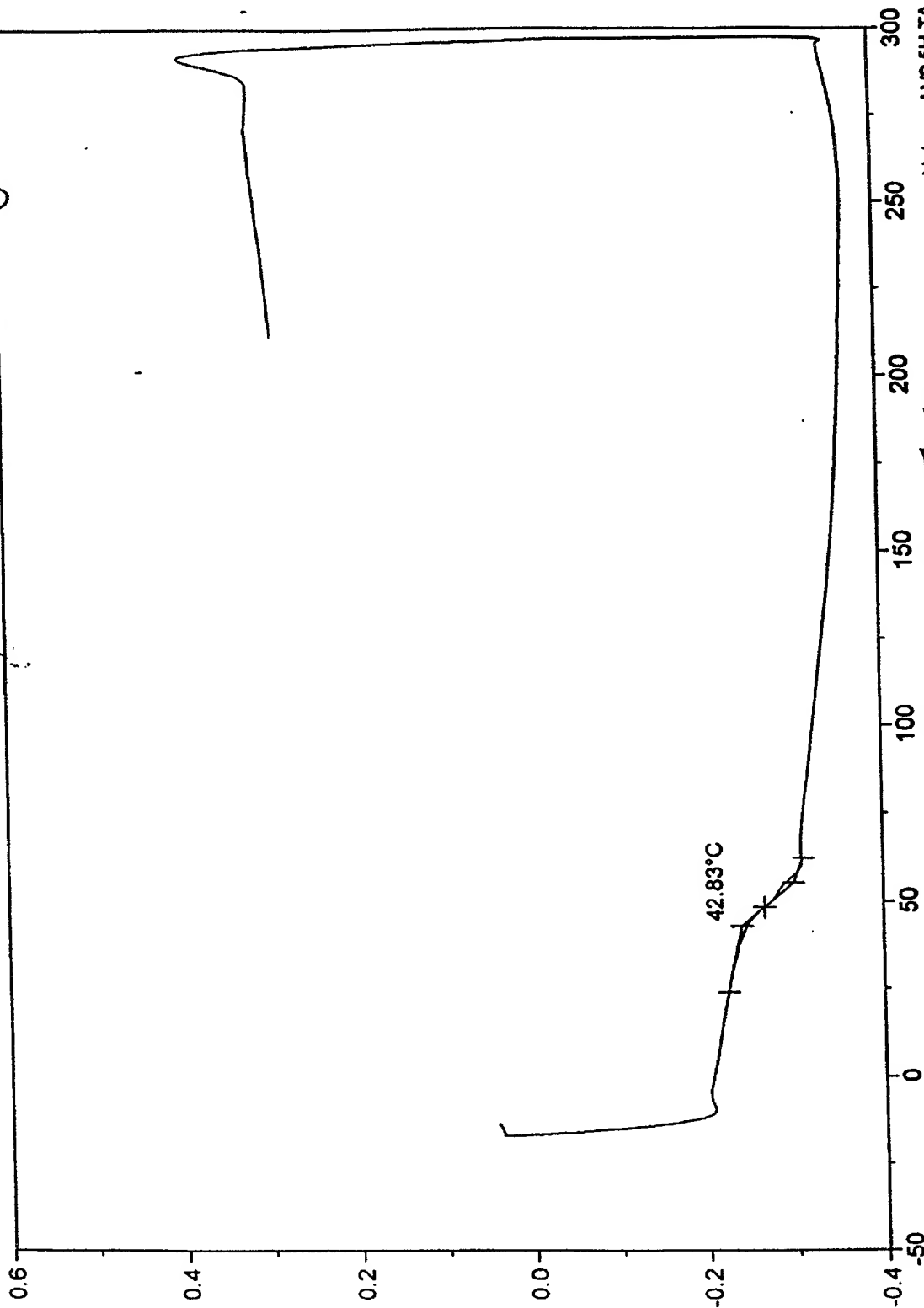
Method: Polymer Samples

Comment: Material characterization

70:30

after Full Cross-linking

Heat Flow (W/g)



Exo Up

Temperature (°C)

Fig 20

Universal V2.5H TA Instruments

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FIG. 21

FIG. 21

